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PAINTING in mixed mediums

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Youth and Recreation Branch
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by Alexander Millar
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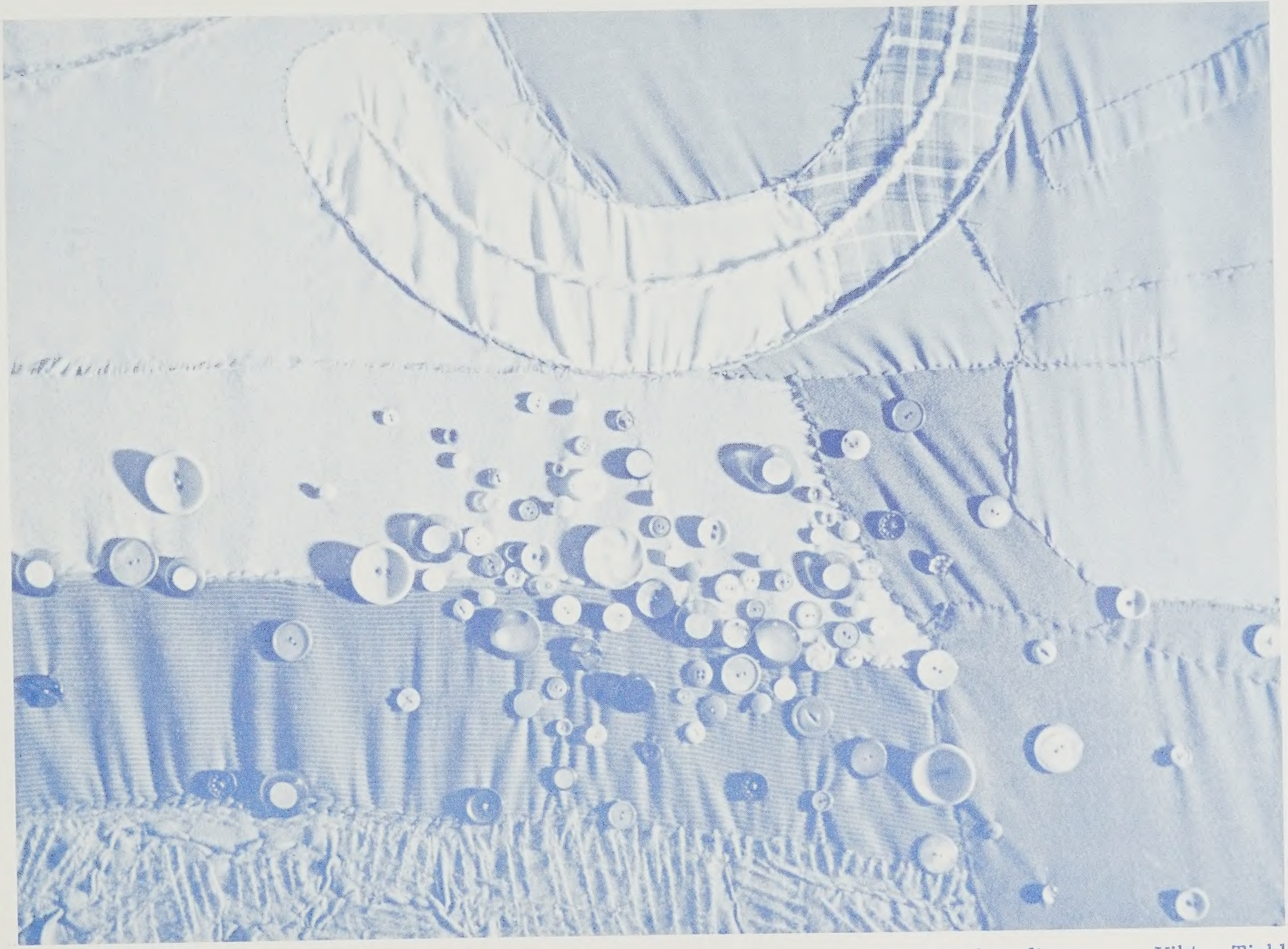
"Je ne lis ni écris ni parle la langue anglaise. Pour moi, un livre écrit en anglais ne veut dire. Mais?

J'aurais tort de penser que la langue anglaise n'a rien à dire!

C'est évident que la faute en est la mienne! Mon ignorance . . . et non pas celle de la langue anglaise!"

Attributed to Pablo Picasso



Combined mediums Viktor Tinkl

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INTRODUCTION

Artists have always been more willing than non-artists to depart from tradition, to experiment, to try something new and different.

Throughout history they have used all sorts of materials, adding or subtracting, dividing or multiplying according to their will or whim.

The purpose of this booklet is to acquaint the reader with the most important traditional painting mediums, modern synthetics and to suggest various experimental ways today's artists are combining them.

ENCAUSTIC PAINTING

Sometimes referred to as wax painting, encaustic painting is a technique in which colored pigment is suspended or "bound" in clear, hot bees' wax.

Although not as old as the techniquesof the prehistoric cave painters, encaustic painting is generally considered one of the earliest of the traditional techniques. It is remarkably durable, because the wax resists moisture and humidity. Many examples from Egyptian, Greek and Roman times shown in museums are still fresh and vital.

Originally the technique was slow and laborious. If the wax was too hot, the pigment had a tendency to separate and the work had to be re-fused at a lower temperature. If the wax was not hot enough, the pigment tended to float on the surface of the wax and it had to be re-fused by holding a hot instrument close enough to the painting to melt the wax and allow the pigment to adhere to the support.

The encaustic technique is easier now. Electrical equipment such as hot-plates, heat lamps, thermostatically controlled palettes and spatulas, electric irons and ovens are all part and parcel of a well equipped studio. Artists are also experimenting with thermoplastics, solvents, blow-torches, and compatible chemicals.

Although World War II did deter any revival of this very beautiful technique, there were artists who carried on the tradition. Modern artists such as Karl Serbe, José Guttierrez and Diego Rivera have done important works in this medium.

FRESCO PAINTING

The word fresco means "fresh". This particular method of painting is also very old. For instance, we know of fragments on the walls of Knossos and Egypt that date from between 1500 and 2000 B. C.

Fresco painting was used extensively during the Renaissance and two separate techniques developed - the buono fresco and the fresco secco.

Buono Fresco

Buono fresco is the true artists' medium and gives results unobtainable by any other process.

Usually frescos are executed directly on the wall, but for the student portable practice panels are made and can be re-used until he becomes proficient enough to work on a wall.

A painting in fresco requires great skill. Even the preparation is demanding. First a "brown coat", a rather rough ground coat of plaster is applied to the wall. Then a very smooth layer of plaster made from a mixture of slaked lime, fine washed sand and often a compatible additive such as marble dust is applied. A right handed artist should start in the upper left hand corner and work across the top. A left handed one should start in the upper right so that he does not splash plaster on an area which he has already painted.

Timing for the application of paint is crucial. Masters such as Michelangelo set a pace of one square metre a day. This is still the measure of a good day's work. This speed, of course, comes only with experience. When the plaster surface is "ripe", damp but not wet, water-based paint is applied. When the water evaporates, the slaked plaster absorbs carbonic acids and other related gases from the air and fixes the pigment into a crystalline carbonate impervious to water and extremely durable.

Fresco Secco

Fresco traditionalists consider "dry" fresco second rate. The common practice was to rub down an old or dry plaster wall surface with various grades of pumice so that the surface was converted to a fine powder. This is then washed with a solution of water and lime. Rather flat washes of water soluble pigments are then applied to the wall while still damp.

Interior decorators made this technique popular. It was also frequently used with dubious results, in the restoration of buono frescos such as Leonardo da Vinci's Last Supper.

This method of painting is not too permanent and the results do not compare with buono frescos.

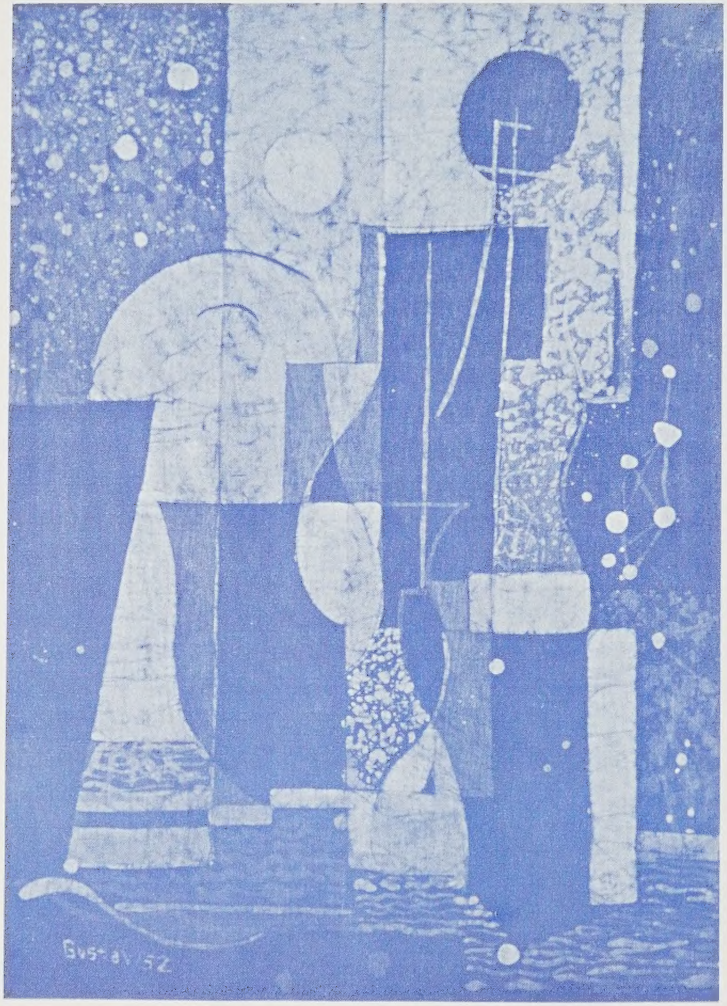
BATIK PAINTING

Although the art of batik painting was used in Egypt about 50 B. C., it is generally accepted that this art form originated in China and India centuries before and was perfected by the Javanese.

The word batik in Javanese means wax painting but the method is not to be confused with encaustic painting even when it is applied to a rigid surface. Early in the 17th century the technique was brought to Europe by Dutch traders and has since spread throughout the western world. In the original technique, hot wax was applied to silk, linen, cotton or wool textiles with a tjanting — a pipe shaped tool having one or more thin spouts. The hot wax was allowed to penetrate the fabric. When the wax cooled, the cloth was dipped into a water-based dye bath. The wax acted as a resist and only those parts not protected by the resist would take on the dye. The procedure is repeated where more than one color is wanted.

One of today's variations of this technique calls for a rigid surface such as poplar plywood, prepared masonite or stretched prepared canvas. The molten wax is kept at the desired temperature in an electric frying pan and is applied to the surface with a hog's hair brush or a heated spatula. The area to be dyed is painted over in water color with a large brush rather than by dipping in a dye bath. The student has more color control but he will not be able to get the crackling effect he would get with true batik technique.

Powdered pigment may be added to the hot wax or melted crayons may be inter-mixed to give some of the qualities of encaustic painting.



Batik Gustav Weisman

EGG TEMPERA

The use of egg tempera flourished from the 11th century until about the early 14th century, and the medium is so durable that many of the works done by the Italian Renaissance masters are still in excellent repair.

The true formula consisted of the pigment mixed in one chicken egg yolk with two equal parts of water and is still regarded as the standard. A raw egg is a natural emulsion and serves as a binder for the colour which becomes moisture proof when dry.

Present day tempera painters prefer to prepare their own surfaces. They vary with the individual artists' requirements as does the style or application of paint.

A full chalk or gesso ground is used on a rigid surface such as untempered masonite, but is not recommended for stretched canvas or other non-rigid supports. Gesso grounds are smooth. Texture is developed in the application of the tempera paint rather than by the use of a rough ground. For more information about techniques, see: The Materials of the Artist and their Use in Painting, by Max Doerner, Harcourt Brace and Co., New York.

The Artist's Handbook of Materials and Techniques by Ralph Mayer, the MacMillan Co. of Canada.

Egg tempera Gustav Weisman

OIL TEMPERA

This medium offers the artist many advantages over egg tempera. Long ago it was discovered that small amounts of sun-thickened linseed oil and dammar varnish could be added to the egg tempera to make the technique and the finish of the surface a little more flexible.

Underpainting the oil tempera in various tonal values of black and white is a technique that is still practised. When the underpainting is dry a glaze of color is superimposed and gives a transparency not obtainable with any other medium.

Many oil tempera paintings done centuries ago have improved with age and look so fresh a viewer might think they had just been finished.

However, modern technology has provided the artist with improvisations and short cuts that give similar results.

OIL PAINTING

Oil painting stems from egg tempera and is an example of the development of painting mediums through experiments, methods of procedure or "schools of thought" by artists. It is generally accepted that the 14th century Flemish master Hubert Van Eyck was a pioneer in oil painting. However, the medium as it is today is the result of an evolution that took place over a long period. At first, small amounts of linseed oil were added drop by drop to egg tempera emulsion and the mixture was applied in a similar way to egg tempera. Gradually painters added more and more oil until oil painting as we know it emerged.

Early oil painting artists had many technical problems. Pigments, except for earth colors, were had to get. They had to be ground and mixed by hand. When commercially prepared pigment became available early in the 19th century, almost immediately the whole philosophy of oil painting changed. As an example, compare Raphael to Van Gogh on the basis of variety and experimentation in the use of materials.

Oil paintings are usually done on prepared rigid supports such as masonite, or non-rigid supports such as stretched linen or cotton duck canvas.

It is important to remember that a painting is only as good as the ground. One should paint from thin to thick - lean to fat. This means dilute layers first. Heavier layers on top.

Most schools teach the following lean to fat technique to assure permanency.

- A drawing is made using natural charcoal. Commercial or synthetic charcoals, lead pencils, graphites, are not recommended. The drawing is knocked off with a clean rag rather than brushed off. The impression that is left is inert and has no chemical action on the paint.

- A turpentine wash follows
- Then an underpainting in colors thinned by the addition of medium
- A heavier body painting. Present day manufacturers have developed ideal oil paint consistencies so that additional medium is not required unless the artist intends to overpaint for a long period of time. If so, the rule is — lean to fat.

Oil paint does not dry by evaporation. It cures by oxidization and in time the medium becomes transparent.

The popularity of oil painting was not seriously challenged until the introduction of synthetic paint.
See page 19

Oil tempera Alexander Millar

Oil painting Alexander Millar

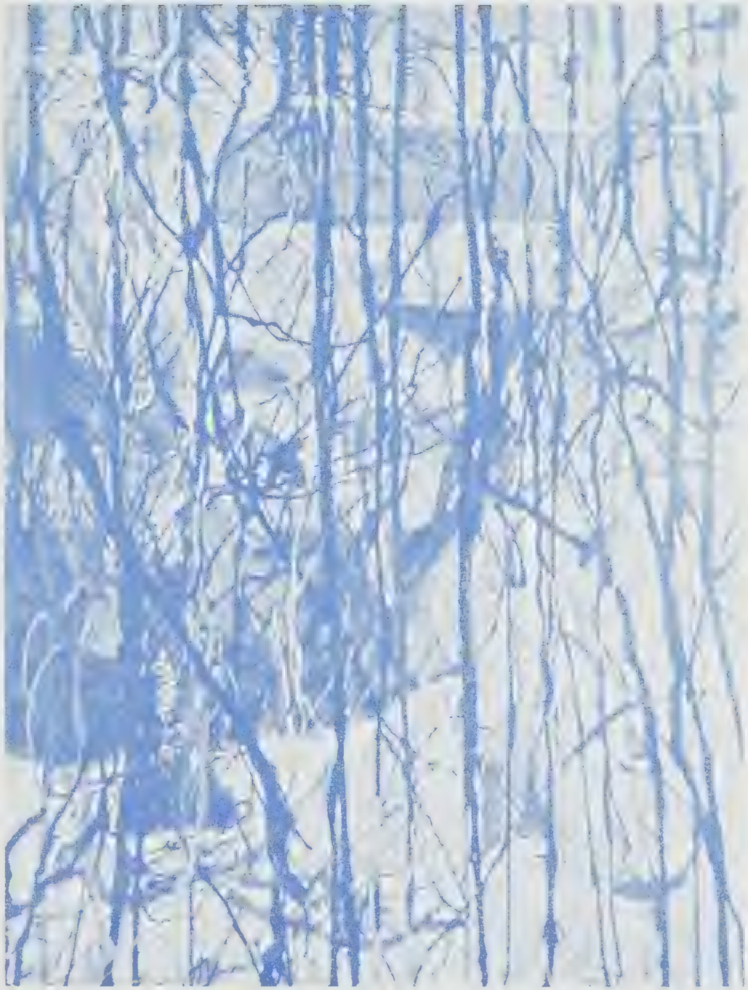
WATER COLOR

The art of water color was practised for centuries in the Far East, but did not reach Europe until the middle of the 17th century. It flourished in France and England and, in Canada, is the most widely used medium after oil painting. Water color is sold in tubes or cakes and is made of pure pigment in a gum arabic binder.

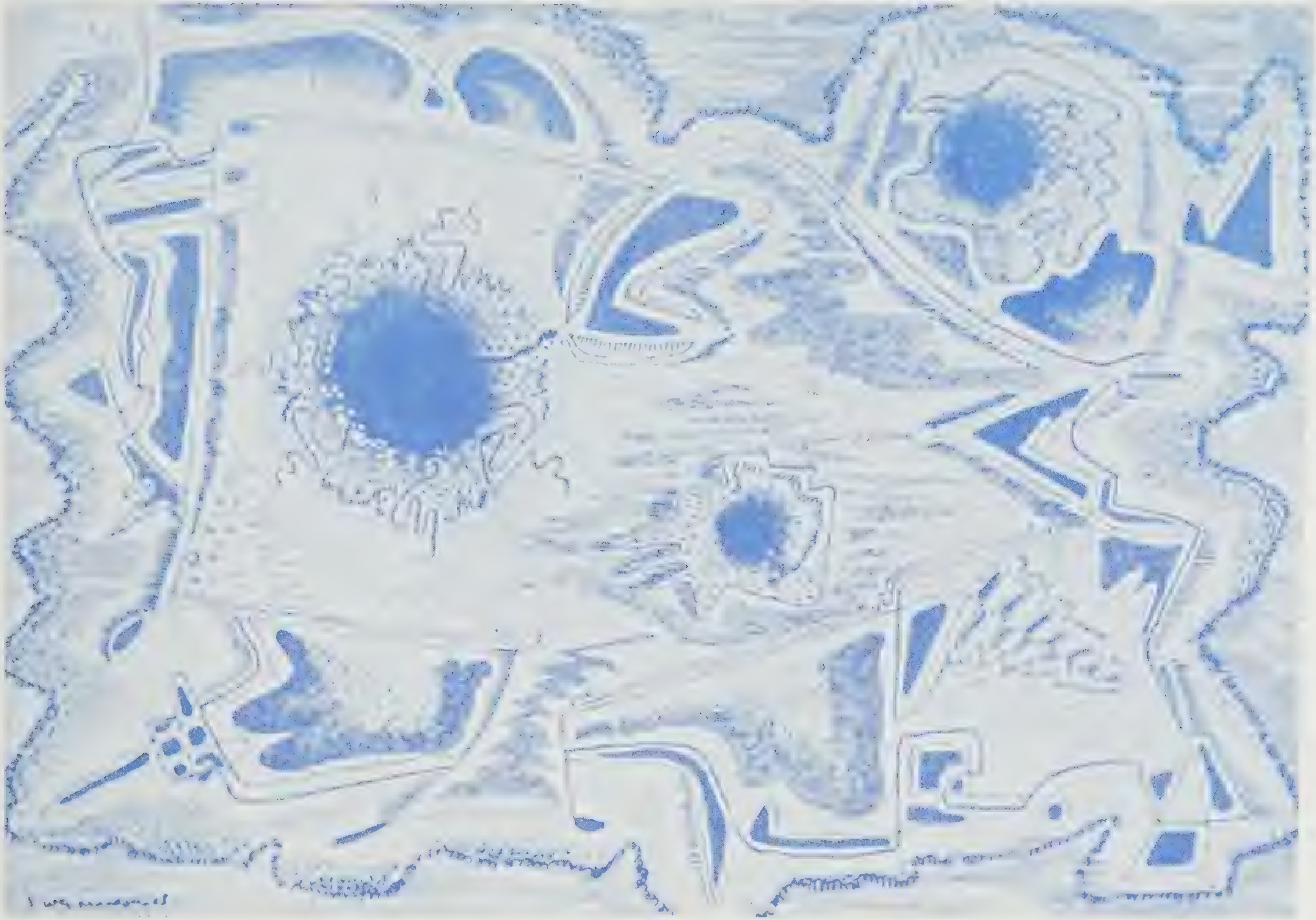
Paintings are done on various grades, weights, textures, qualities and tints of machine or hand pressed paper. Traditionally, a transparent wash is put on and the result varies according to the texture and tint of the paper. Many overlays of transparencies can be applied.

Water color can be used with inks, resists, dyes and other water soluble media. When opaque white or other colors are employed, the paintings are known as gouache.

Other water based paints such as caseins, tempera, water soluble crayons, inks and acrylics are included in the water color category. The advent of water soluble acrylics brought a new interest in water color techniques. Despite the new medium however, the technique is still so demanding few artists ever really master it.



Water color Donald McBride



Water color J. W. G. MacDonald

PASTEL PAINTING

Pastels are colored chalks made of pure pigment bound by thin solution of gums or rabbit skin glue.

Earth color chalks were used by prehistoric artists, but pastel painting as we know it emerged in the 18th century. It was popular with the Impressionists, Degas, Toulouse-Lautrec, Renoir and Manet.

True pastel painting does not depend on transparencies because it reflects only surface light. The support is usually a soft grade of paper which may vary in color and be considered as part of the color scheme by allowing unpainted areas to show. The finished work is intense and durable. It is sprayed with a fixative and mounted under glass.

In the past, artists experimented with pastels in conjunction with tempera painting. Today they also experiment with pastels in conjunction with acrylics and inks.

CONTEMPORARY AND SYNTHETIC MEDIA

Until the early 1930's, natural resins and gums such as batu, dammars, rosin and shellac were the basic binders of paints. Now most binders are produced by synthetic chemical processes.

Acrylics are based on various polymer compounds. Artists generally use those that are water based emulsions, and those compatible to oil based paint. Acrylics may be used also with chalks, inks, dyes, powdered pigments. Depending on the base, they are often used as a sketching medium to be overpainted and completed with another medium.

There are two types of alkyds, one is a water based emulsion, the other is oil modified. Both are used as primer or ground.

Pyroxylin is known as lacquer or as cellulosic paint. Although Jackson Pollock and some of the Mexican muralists produced great works in early chemical varnishes, this medium seems to have been replaced by newer materials.

Epoxy resin as a painting medium is used with other modified chemicals and with pure pigment. Some students experiment with epoxy as the basis of collage or montage because of its excellent binding power.

Pastel Alexander Millar

PVA AND PVC

Poly vinyl acetate and poly vinyl chloride, often referred to as vinylite, are new developments. Both are formulated media and are used with powdered pigments, inks and compatible dyes. Previously artists made their own medium from a formula invented by Alfred Duca in 1945.

Ethyl silicate is another new development, Because it resists weathering and pollution, it is a good medium for outdoor use. Synthetic mediums are durable, retain their color, resist molds, moisture and the action of dilute acids and alkalis. Because of their binding power, they can be used with other materials such as sand, glass, paper.

OIL LUCITE

A close relative of plexiglass, lucite No.0046 replaces Nos. 44 and 45. It is available in slabs, pellets, granulated crystals and powder. Lucite is easy to prepare. About one inch of crystals is placed in a small jar with a tight lid. An inch of pure spirits of turpentine is poured on top of the crystals. The jar is sealed and left in a warm place such as a sunny window for 12 hours. Do not heat in a double boiler. The jar is turned upside down and left for another 12 hours. Turning is repeated until the crystals are dissolved — 24 hours at 80^{0} should do it. The ideal consistency is like syrup. If the solution is too thick, more turpentine can be added.

This solution is then used with regular oil paint. For the turpentine wash stage, add one part solution to six parts pure spirits of turpentine. For impasto or body painting, one part solution to four parts pure spirits of turpentine.

Lucite is compatible with oil paint and remains soluble in turpentine for a long time. Paintings in lucite should be cleaned with soap and water, not with solvents.

Although many part-time painters do not accept some of the synthetics, artists have found them more versatile and more permanent. Much experimentation is taking place and the variety of mixed media is increasing.

Some of the advantages of oil-compatible acrylic resin paints are:

- Durability
- No yellowing, cracking or fading
- Rapid drying

- Greater brilliance than oil paint
- The wet color value is the same as the dry depending on the amount of binder used
- Re-soluble in turpentine. May be re-worked
- Drying may be retarded by the addition of linseed oil (although this defeats the advantages of a fast drying medium)
- May be built up to any thickness.

ACRYLICS

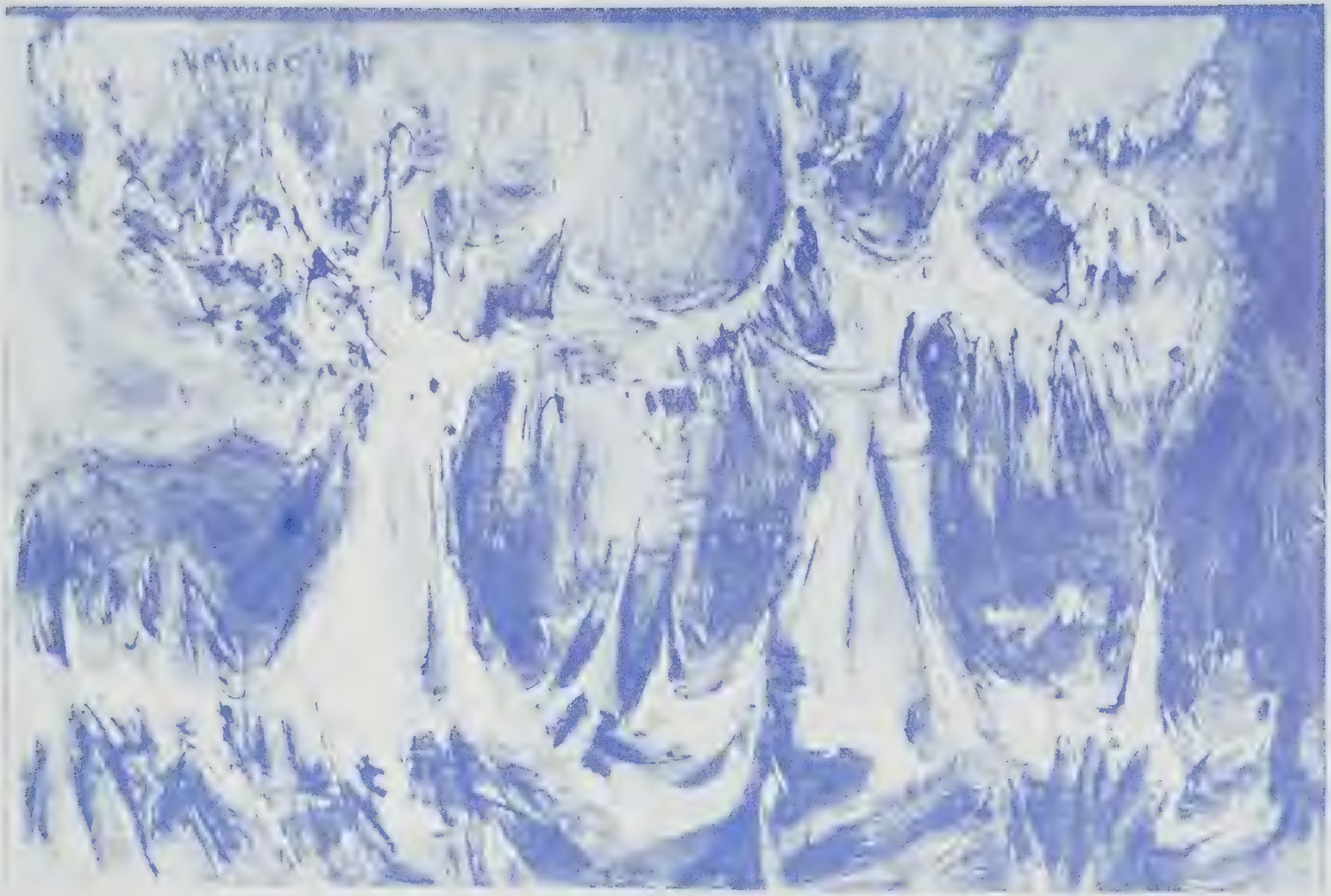
Beside PVA already discussed, the other, polymer tempera is based on acrylic resin and is also available commercially. The generic term for this one is acrylics.

Acrylics have many advantages and are becoming the most popular painting medium today.

Acrylics use an aqueous medium. All of the watercolor, tempera and oil painting techniques may be used. The most common supports are stretched canvas, masonite and illustration board. Surfaces must be prepared with a ground, usually an acrylic commercial gesso. Greasy or oily surfaces are not recommended. The early stages may be worked on the flat, the latter on an easel.

Freezing solidifies acrylic paints and medium and they cannot be restored. Care should be taken in storing them. There is no problem with the temperature in the storage of a finished painting. The best working temperature is from 75^{o} to 80^{o}. Drying can be retarded by using a water sprayer with a small amount of glycol added to the water. Some of the properties of water compatible acrylic resin paints are:

- Durability
- No yellowing, cracking or fading
- Rapid drying. (Takes about 20 minutes depending on thickness of the paint and the humidity)
- Resistant to water immediately when dry
- Versatility. May be used with dry pigment and all other water dispersed mediums, and many other materials
- Non-toxic. Non-inflammable



Acrylics Alexander Millar

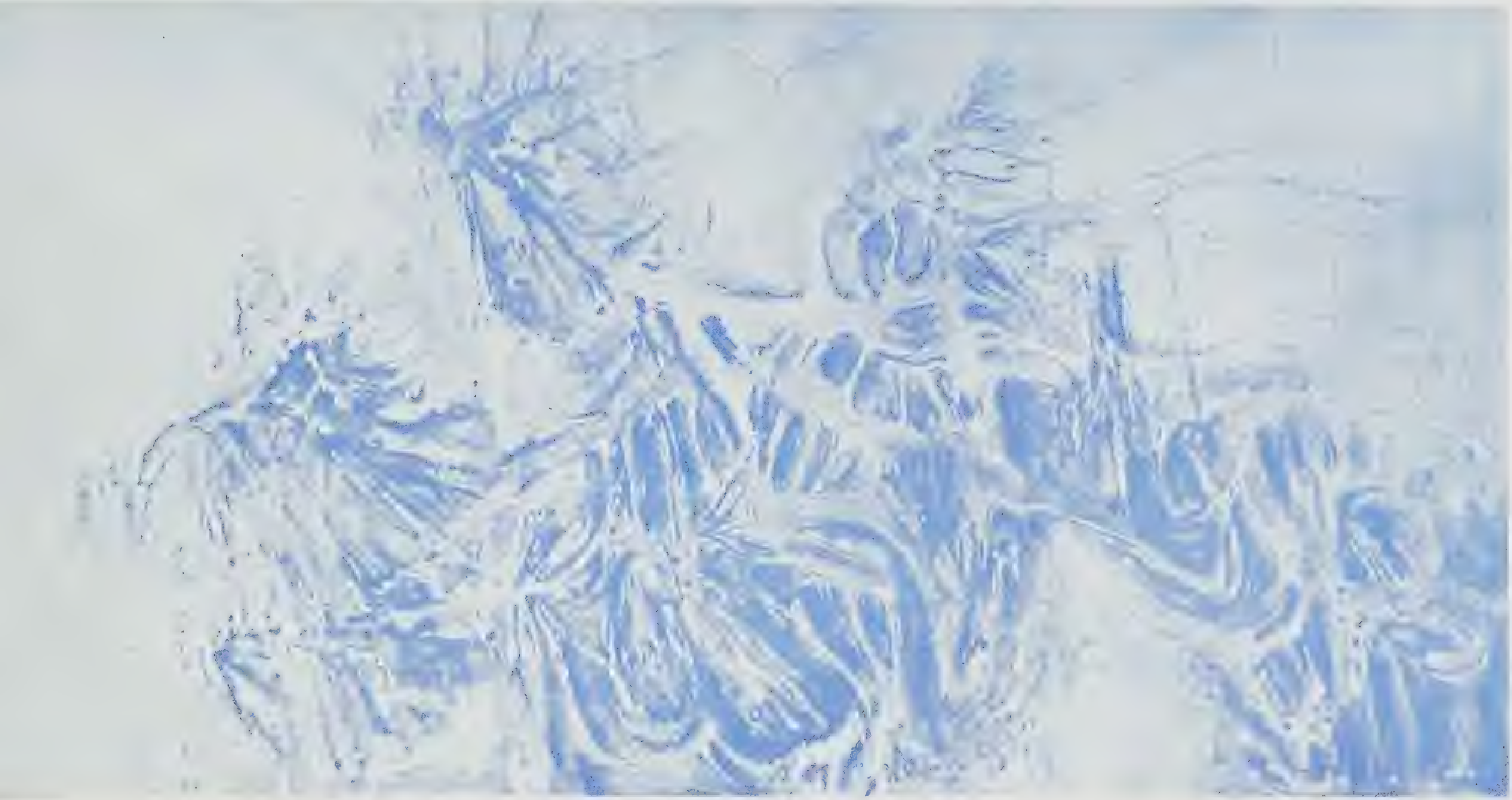
- Binding power. Will adhere to a great variety of surfaces
- May be built up to any thickness.

COMBINING MEDIUMS

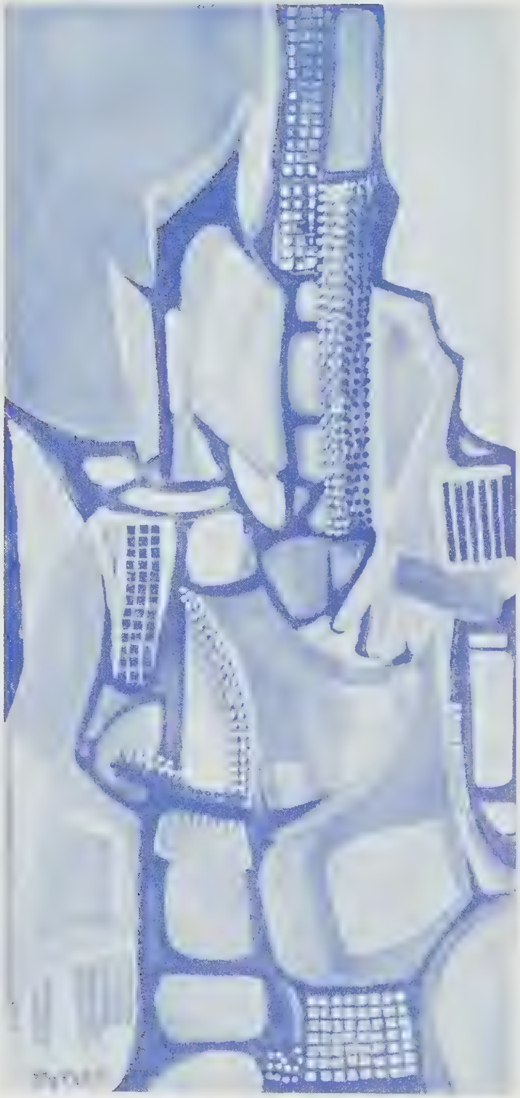
Artists are experimenting with a vast variety of materials and techniques. Synthetics, electronic aids and devices have played an important role in experiments over the last 25 years.

Many galleries have displayed environmentals where one walks into a room of sound, flashing lights, moving objects, discordant colors, odors. Although some of the earlier examples were neither well thought out or received, more recent works have been. Those at Expo '67 for instance. The use of film, projectors and other audio-visual devices is now well-established.

The following examples of experimental works deal only with the visual:



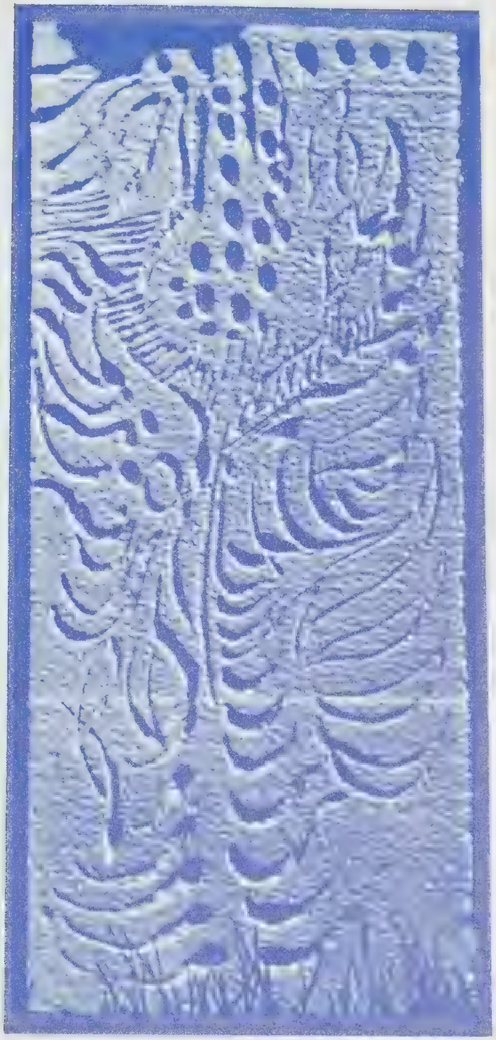
Acrylic on wood. This painting was developed from the pastel drawing shown on page 21. The painting was built up to about an inch in thickness with a modelling paste, copper wire, nails, sand and pebbles. It was then overpainted in thin, transparent acrylic washes.

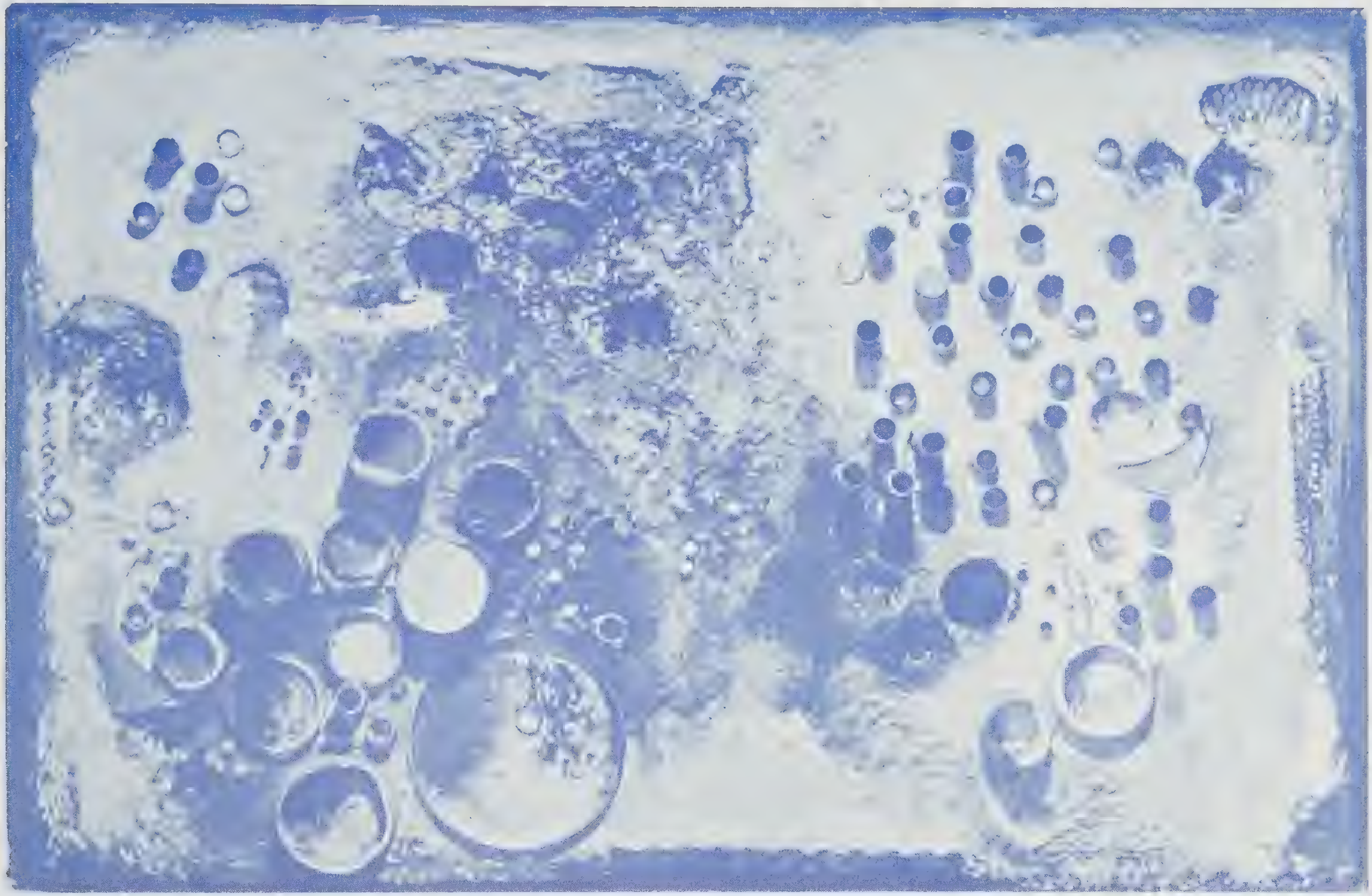


Acrylic on masonite. This multi-surface work employs positive and negative areas as well as illusionary dimensions. It has an irregular format and the patterns of light and shadow vary with the source of lighting.

Gustav Weisman

Drawing on styrofoam. Using styrofoam 1 inch thick, the drawing was made with a hot iron, burning through the surface to the desired depth. Surface was then painted over with an acrylic gesso. While still wet, it was sprinkled with sand and powdered pigments.





Variations of collage techniques.

Nails, wire, wirescreening, copper pipe, paper tubes, plastic coffee cups, ceramic tiles, glass styrofoam, metal, a blow torch and acrylic medium with powdered pigments.

TYPICAL WORKSHOP — COMBINED MEDIUMS AND COLLAGE

Materials required:

10 sheets of cartridge paper
two bottles colored ink
several lengths of cotton string
old magazines
different grades of paper and cardboard
tissue papers
grades of cloth and materials
clean sand or marble dust
screening and netting

Other materials:

acrylic matte medium
empty ice cream or cottage cheese containers
acrylic or oil paints
two prepared masonite panels at least 18" x 24"

Friday evening — demonstration and chalk talk by the instructor

Saturday morning — students practice exercises in string drawing on cartridge paper

Saturday afternoon — string drawing on the prepared masonite panels using a selection of collage materials. See illustrations on page 39.

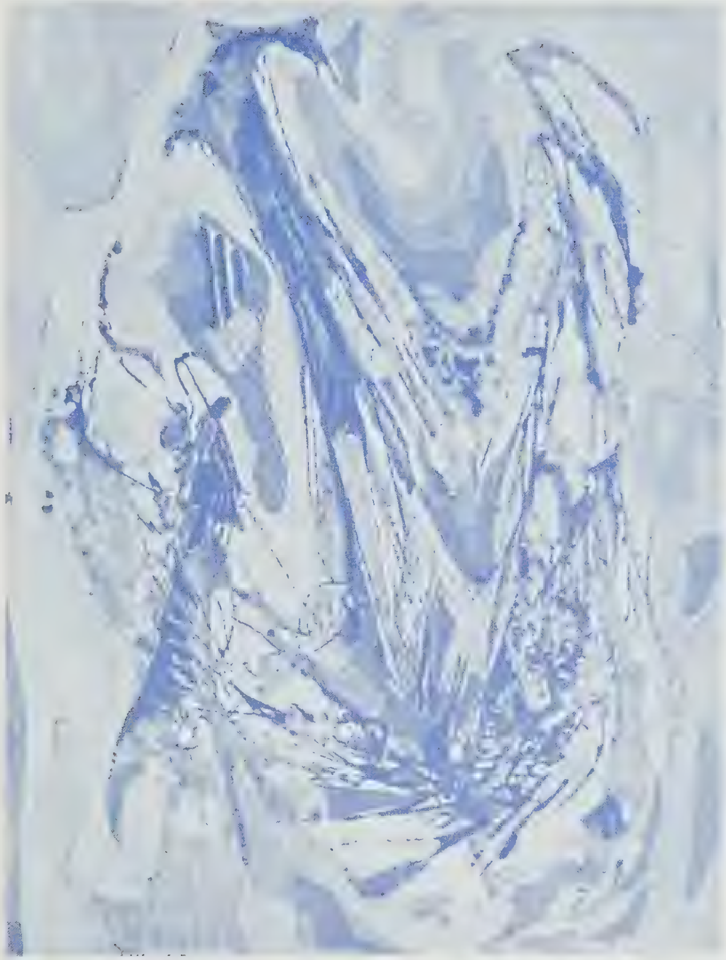
Saturday evening — application of collage materials. See illustration on page 41.

Sunday morning — overpainting in oils or acrylics. See illustration on page 41.

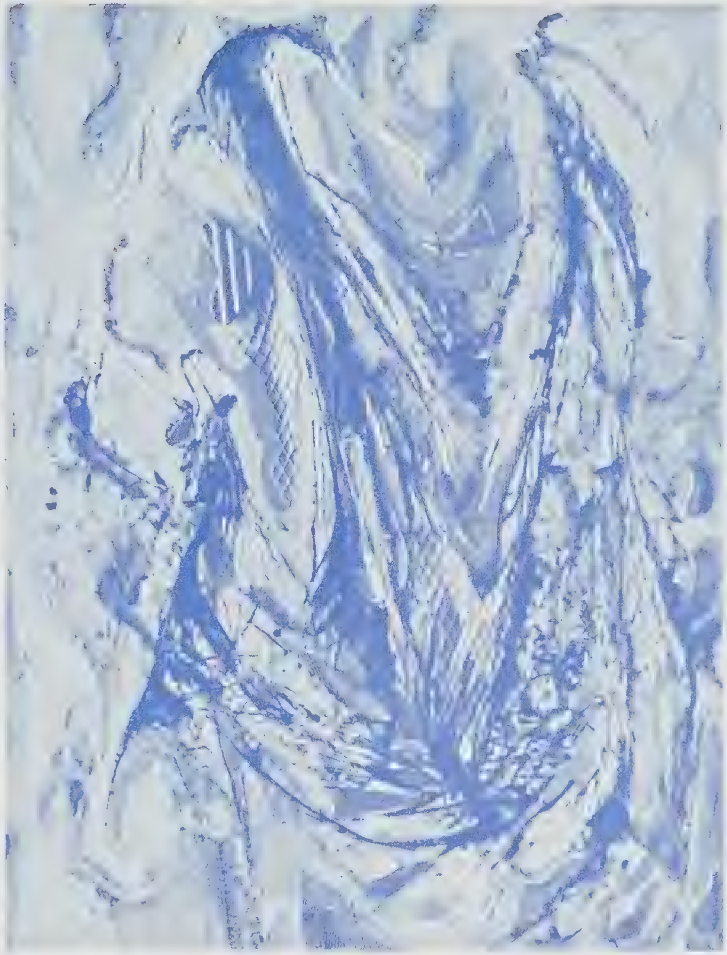
Note: Students work on both panels at the same time to avoid delays caused by drying time.

Stage 1 in collage workshop

Stage 2 in collage workshop

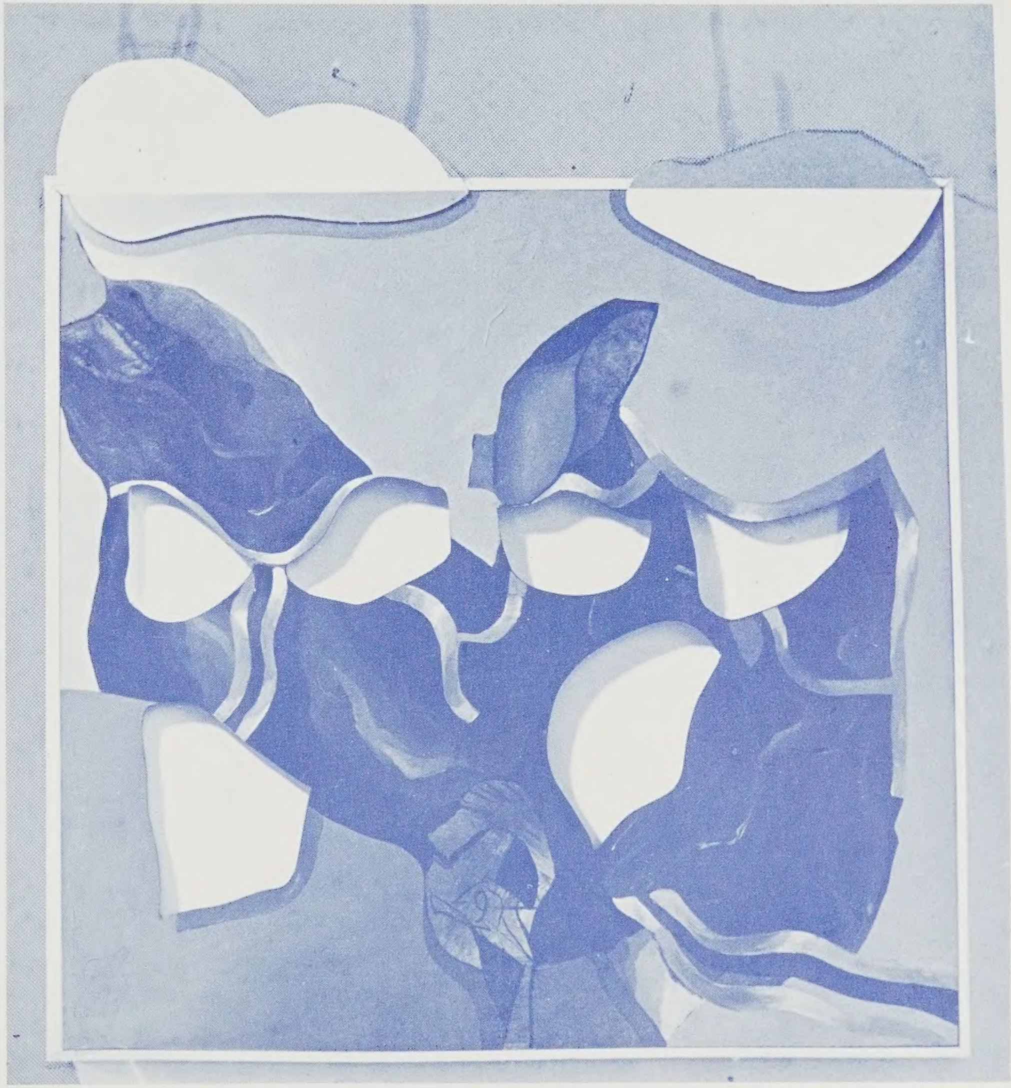


Stage 3 in collage workshop



Stage 4 in collage workshop

Collage Student's exercise



Collage in three layers
James Gordaneer

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